

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06952

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 6 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	✓ WO 91 10675 A (STICHTING RES FONDS PATHOLOGIE) 25 July 1991 (1991-07-25)	1-4, 10-12, 14,16, 17,19 8,9
Y	page 4, line 8 - page 5, line 17 page 8, line 14 - page 9, line 16 page 12, line 13 - page 13, line 7 page 14 - page 20, line 28	
Y	✓ US 5 538 848 A (LIVAK KENNETH J ET AL) 23 July 1996 (1996-07-23) the whole document	8
Y	✓ EP 0 070 685 A (STANDARD OIL CO) 26 January 1983 (1983-01-26) abstract; figure 2	9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

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Date of the actual completion of the international search

12 July 1999

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27/07/1999

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>✓ US 5 527 898 A (BAUER HEIDI M ET AL) 18 June 1996 (1996-06-18)</p> <p>column 8, line 22 - column 9, line 5 column 10, line 26 - column 11, line 30 column 17, line 48 - column 18, line 61; examples 1,3</p> <p style="text-align: center;">---</p>	1,4,6,7, 10-14, 16-19
X	<p>✓ WO 96 29431 A (SEQUENOM INC) 26 September 1996 (1996-09-26) page 41, line 15 - page 44, line 22; figures 5,21; example 5 page 15, line 18 - page 16, line 4</p> <p style="text-align: center;">---</p>	15
A	<p>✓ EP 0 229 701 A (CETUS CORP) 22 July 1987 (1987-07-22) example 2</p> <p style="text-align: center;">---</p>	5
X	<p>CHELLY J ET AL: "Dystrophin gene transcribed from different promoters in neuronal and glia cells." NATURE, (1990 MAR 1) 344 (6261) 64-5. , XP002108801 figure 1</p> <p style="text-align: center;">---</p>	20
X	<p>EP 0 593 789 A (SUMITOMO METAL IND) 27 April 1994 (1994-04-27) page 4, line 50 - page 6, line 40</p> <p style="text-align: center;">---</p>	20
X	<p>WO 92 19743 A (CHIRON CORP) 12 November 1992 (1992-11-12) page 43 page 140</p> <p style="text-align: center;">---</p>	22
A	<p>WO 96 35437 A (IMMUNO AG ;EIBL JOHANN (AT); SCHWARZ OTTO (AT); DORNER FRIEDRICH ( ) 14 November 1996 (1996-11-14) page 12, paragraph 4 page 21, paragraph 2; example 6 page 30, paragraph 2; table 1.1 page 33-34</p> <p style="text-align: center;">-----</p>	20,21

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Information on patent family members

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**PCT**  
WELTORGANISATION FÜR GEISTIGES EIGENTUM  
Internationales Büro  
INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE  
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

<b>(51) Internationale Patentklassifikation <sup>6</sup> :</b>  <b>C12Q 1/68</b>	<b>A3</b>	<b>(11) Internationale Veröffentlichungsnummer: WO 99/23249</b>  <b>(43) Internationales Veröffentlichungsdatum:</b> 14. Mai 1999 (14.05.99)								
<b>(21) Internationales Aktenzeichen:</b> PCT/EP98/06952  <b>(22) Internationales Anmeldedatum:</b> 3. November 1998 (03.11.98)  <b>(30) Prioritätsdaten:</b> <table style="width: 100%; border: none;"><tr><td style="width: 33%;">197 48 690.8</td><td style="width: 33%;">4. November 1997 (04.11.97)</td><td style="width: 33%;">DE</td></tr><tr><td>198 14 001.0</td><td>28. März 1998 (28.03.98)</td><td>DE</td></tr><tr><td>198 14 828.3</td><td>2. April 1998 (02.04.98)</td><td>DE</td></tr></table> <b>(71) Anmelder (für alle Bestimmungsstaaten ausser US):</b> ROCHE DIAGNOSTICS GMBH [DE/DE]; D-68298 Mannheim (DE).  <b>(72) Erfinder; und</b> <b>(75) Erfinder/Anmelder (nur für US):</b> KESSLER, Christoph [DE/DE]; Schlossbergweg 11, D-82057 Icking (DE). HABERHAUSEN, Gerd [DE/DE]; Jochbergweg 2, D-82393 Iffeldorf (DE). BARTL, Knut [DE/DE]; Am Westend 6, D-82407 Wielenbach (DE). ORUM, Henrik [DK/DK]; Vildrosevej 3, DK-3500 Værløse (DK).  <b>(74) Gemeinsamer Vertreter:</b> ROCHE DIAGNOSTICS GMBH; Patentabteilung, D-68298 Mannheim (DE).	197 48 690.8	4. November 1997 (04.11.97)	DE	198 14 001.0	28. März 1998 (28.03.98)	DE	198 14 828.3	2. April 1998 (02.04.98)	DE	<b>(81) Bestimmungsstaaten:</b> AU, CA, JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Veröffentlicht</b> <i>Mit internationalem Recherchenbericht.</i> <i>Vor Ablauf der für Änderungen der Ansprüche zugelassenen Frist. Veröffentlichung wird wiederholt falls Änderungen eintreffen.</i>  <b>(88) Veröffentlichungsdatum des internationalen Recherchenberichts:</b> 10. September 1999 (10.09.99)
197 48 690.8	4. November 1997 (04.11.97)	DE								
198 14 001.0	28. März 1998 (28.03.98)	DE								
198 14 828.3	2. April 1998 (02.04.98)	DE								
<b>(54) Title: SPECIFIC AND SENSITIVE METHOD FOR DETECTING NUCLEIC ACIDS</b>  <b>(54) Bezeichnung: SPEZIFISCHES UND EMPFINDLICHES NUKLEINSÄURENACHWEISVERFAHREN</b>  <b>(57) Abstract</b> <p>The invention relates to a method for detecting a nucleic acid comprising the production of a plurality of amplifications of a section of said nucleic acid with the assistance of two primers of which one can bond on a bonding sequence A of the nucleic acid and the other can bond on a bonding sequence C' which is complimentary to a sequence C. Sequence C does not overlap A and is situated in a 3' direction from A. The inventive method also includes bringing the amplifications in contact with a probe having a bonding sequence D which can bond on a sequence B, said sequence B being situated between sequences A and C, or the complement thereof. In addition, the invention relates to the detection of the construction of a hybrid out of the amplification and the probe, whereby the sequence situated between the bonding sequences A and C contains no nucleotides, said nucleotides not being linked to the bonding sequence D of the probe or to complement D' thereof.</p> <b>(57) Zusammenfassung</b> <p>Verfahren zum Nachweis einer Nukleinsäure umfassend die Herstellung einer Vielzahl von Amplifikaten eines Teilstücks dieser Nukleinsäure mit Hilfe zweier Primer, von denen einer an eine Bindesequenz A der Nukleinsäure binden kann und von denen der andere an eine Bindesequenz C', die zu einer mit A nicht überlappenden, in 3'-Richtung von A gelegenen Sequenz C komplementär ist, binden kann, Inkontaktbringen der Amplifikate mit einer Sonde mit einer Bindesequenz D, welche an eine zwischen den Sequenzen A und C gelegene Sequenz B oder das Komplement davon binden kann, und Nachweis der Bildung eines Hybrides aus dem Amplifikat und der Sonde, wobei die zwischen den Bindesequenzen A und C gelegene Sequenz keine Nukleotide enthält, die nicht der Bindesequenz D der Sonde oder ihrem Komplement D' zugehören.</p>										